

IN THE CLAIMS

c1 1. (Currently Amended) A high-efficiency low-pressure gas discharge lamp which includes a discharge vessel (1) and at least two spatially separated capacitive coupling-in structures (2) and operates at an operating frequency f , characterized in that each capacitive coupling-in structure (2) is formed by at least one dielectric having a thickness d and a dielectric constant ϵ , each dielectric being subject to the condition $d/(f\epsilon) < 10^{-8}$ cm.s thereby providing a high luminous flux in a small structural volume.

2. (Currently Amended) A low pressure gas discharge lamp as claimed in claim 1, characterized in that at least one dielectric is subject to the condition $d/(f\epsilon) < 10^{-9}$ cm.s thereby allowing the at least two spatially separated capacitive coupling-in structures (2) to operate as a ballast.

3. (Original) A low pressure gas discharge lamp as claimed in claim 1, characterized in that the operating frequency f is in the range of from 150 Hz to 1 MHz.

4. (Original) A low pressure gas discharge lamp as claimed in claim 1, characterized in that the dielectric constant of the dielectric has an essentially negative temperature dependency.

5. (Original) A low pressure gas discharge lamp as claimed in claim 1, characterized in

that the discharge vessel (1) is shaped essentially as a hollow cylinder having an inside diameter d_i which is smaller than 10 mm.

6. (Original) A low pressure gas discharge lamp as claimed in claim 1, characterized in that the capacitive coupling-in structure(2) is shaped essentially as a hollow cylinder, has an inside diameter d_i and is connected to the discharge vessel (1) in a compression proof manner.

7. (Original) A low pressure gas discharge lamp as claimed in claim 1, characterized in that the discharge vessel (1) is filled with a filling gas containing at least one inert gas.

8. (Original) A low pressure gas discharge lamp as claimed in claim 1, characterized in that the filling gas contains mercury.

9. (Original) A low pressure gas discharge lamp as claimed in claim 1, characterized in that the operating frequency f is less than 150 kHz.

10. (Original) A low pressure gas discharge lamp as claimed in claim 1, characterized in that the discharge current of the gas discharge is more than 10 mA.

11. (Original) A low pressure gas discharge lamp as claimed in claim 1, characterized in that the dielectric constant of a paraelectric, ferroelectric or anti-ferroelectric solid material.

12. (Original) A low pressure gas discharge lamp as claimed in claim 1, characterized in that the discharge vessel (1) consists of an UV transparent material and is filled with a filling gas emitting UV.

c\ 13. (Currently Amended) A device for the backlighting of a liquid crystal display, including at least one low-pressure gas discharge lamp with a discharge vessel (1), at least two capacitive coupling-in structures (2), operating at an operating frequency f , as the light source (10), and an optical system (13, 14, 15) for producing backlighting, characterized in that each capacitive coupling-in structure (2) consists of at least one dielectric having a thickness d and a dielectric constant ϵ , each dielectric being subject to the condition $d/(f \cdot \epsilon) < 10^{-8}$ cm.s thereby providing a high luminous flux in a small structural volume.
